REQUEST THAT THE INTERNATIONAL COMMISSION RULE TO SUPPRESS FOWLER'S LECTOTYPE DESIGNATIONS OF *ALBURNOPS PLUMBEOLUS* COPE, 1865 AND *HYPSILEPIS CORNUTUS CERASINUS* COPE, 1868 (PISCES, CYPRINIDAE) Z.N.(S.) 2154

By Carter R. Gilbert (*The Florida State Museum, University of Florida, Gainesville, Florida 32611, U.S.A.*)

Recently (1971, *Bull. Zool. Nomencl.*, vol.28 (5-6): 173-175), I submitted a petition to the International Commission on Zoological Nomenclature, asking that various lectotype designations (mostly involving species of North American cyprinid fishes) proposed by Fowler (1909, *Proc. Acad. nat. Sci. Philad.* [1908], vol. 60: 517-553; 1910, *Proc. Acad. nat. Sci. Philad.*, vol. 62: 273-293, pls. 15-21; 1918, *Occ. Pap. Mus. Zool. Univ. Michigan*, vol. 60: 1-51, pls. 1-13) be suppressed. The reasons for this request centred both around the ambiguous nature of these designations and the fact that for two species (*Alburnops plumbeolus and Hypsilepis cornutus cerasinus*) the lectotypes selected represent species obviously different from those upon which the original descriptions were based.

2. Collette and others (1972, *Bull. Zool. Nomencl.*, vol. 29 (4): 198) subsequently recommended that this petition be denied on the grounds that each case should be evaluated on its own merits, and that wholesale rejection of Fowler's lectotypes would serve no useful purpose in those situations in which nomenclatural complications were not involved. They further stated that they likely would support a well-documented request to suppress those lectotype designations resulting in unwarranted name changes, and specifically mentioned *Hypsilepis cornutus cerasinus* in this regard. A letter was received by me from the Secretariat of the Commission, indicating that Collette et al's recommendation would be followed. The present petition, which is intended as a substitute for the above, is to request that Fowler's lectotype designations for *Alburnops plumbeolus* Cope, 1865, and *Hypsilepis cornutus cerasinus* Cope, 1868, be suppressed. The dates of publication of these names were analysed by Gilbert, 1971, *Copeia* (1971), No. 3: 474-479.

3. Of the seven specimens comprising the syntypic series of *Alburnops plumbeolus* Cope, 1865, *Proc. Acad. nat. Sci. Philad*, for 1864, vol. 16: 276-285 (ANSP 2055-2061), six are *Notropis chrysocephalus* (Rafinesque. 1820), and the seventh is *Notropis heterodon*(Cope, 1865). It is important to note here that the latter species was first described (as *Alburnops heterodon*) in the same paper as *A. plumbeolus* (Cope, 1865, *Proc. Acad. nat. Sci. Philad.*, vol. 16: 276-285). The original description of *A. plumbeolus* stressed pharyngeal-tooth and anal fin-ray counts (2,4-4,2 and 9, respectively), both of which are diagnostic of *Notropis chrysocephalus* but not *N. heterodon* (for which the same counts are usually 1,4-4,1 and 8). No mention was made of a distinct black lateral stripe, a feature characteristic of *N. heterodon* but not *N. chrysocephalus*, although this character was prominently mentioned in the original description of *Alburnops heterodon*. There can be no doubt that Cope's description of *Alburnops plumbeolus* was based on the species now called *Notropis chrysocephalus*.

4. Fowler's (1910: pl. 18, fig. 30) drawing of the "type" of *Alburnops plumbeolus* is calculated to be 44.2 mm standard length, which is very close to the actual length (43.7 mm SL) of the largest syntype (i.e., the specimen of *Notropis heterodon*), and several millimetres longer than any of the remaining syntypes (all *Notropis chrysocephalus*), the largest of which is 40.5 mm SL. This becomes especially significant when one considers that (a) Fowler habitually drew the largest specimen in a series, and (b) the illustrations appearing in Fowler's 1910 paper are remarkably accurate so far as body length is concerned. Furthermore, the figure of *A. plumbeolus* clearly shows eight anal rays, whereas all six specimens of *N. chrysocephalus* in the syntypic series have nine. It seems obvious that the drawing in question was based on the individual of *N. heterodon*.

5. Forty-three syntypes of *Hypsilepis cornutus cerasinus* Cope, 1868, *Proc. Acad. nat. Sci. Philad.* for 1867: 159 (ANSP 3791-3833) are present, of which nine are *Notropis cerasinus* (as presently understood), and the remaining 34 are closely related *Notropis albeolus*. Despite the predominance of the latter species in the type-series, Cope's original description obviously applies to *N. cerasinus*, as indicated by his reference to a form of "rather small size" (the largest known specimen of *N. cerasinus* is only 87.5 mm standard length, versus a maximum size of 130mm for *N. albeolus*); the deep rose and brilliant crimson colour on the body and lower fins, respectively (these colours are much more subdued in *N. albeolus*); and 16 scales in front of the dorsal fin (usually from 20 to 22 in *N. albeolus*). The specimen illustrated by Fowler (1910: pl. 18, fig. 31) is calculated to be 99 mm standard length, which is close to the size of the largest specimen of *N. albeolus* in the type series (97.5 mm SL), but substantially larger than the largest syntype of *N. cerasinus* (73 mm SL). Fowler's drawing of *Hypsilepis cornutus cerasinus* clearly was based on a specimen of *N. albeolus*.

6. Fowler's (1910) treatments and illustrations of *Alburnops plumbeolus* and *Hypsilepis cornutus cerasinus* fulfil the requirements for lectotype designations, according to Article 74b of the International Code of Zoological Nomenclature. Should these lectotypes be allowed to stand, unfortunate and unnecessary name changes would result. The specific name *cerasinus*, which has long been associated with the Crescent shiner (*see* Bailey et al, 1970, *Amer. Fish. Soc. Spec. Publ.*, No. 6: 21), would now apply to the White shiner, *Notropis albeolus* Jordan, 1889, and a new name would be required for the former. Inasmuch as *Alburnops plumbeolus* and *Alburnops heterodon* were described in the same paper, it is conceivable that the former name could supplant the latter, depending upon the action of the first reviser.

7. In 1964 (*Bull. Fla. St. Mus. biol. Sci.* vol. 8(2): 95-194) I designated lectotypes for both *Hypsilepis cornutus cerasinus* (p.137) and *Alburnops plumbeolus* (p.160), this being done before the implications of Fowler's 1910 paper were apparent. Although different lectotype speciments from Fowler's obviously are involved, the catalogue numbers are the same (*H. c. cerasinus*, ANSP 3791; *A. plumbeolus*, ANSP 2055). Because Fowler's designations appeared first, the above numbers logically should be reserved for his specimens, and new numbers must necessarily be assigned to mine. I therefore

propose that the 73.0 mm SL specimen selected by me as lectotype of *H. c. cerasinus* be recatalogued as ANSP 3833; the paralectotypes would retain the catalogue numbers ANSP 3792-3799, and the remaining syntypes, which are recatalogued as *Notropis albeolus*, would be assigned the numbers ANSP 3791 (97.5 mm specimen) and 3800-3832. For *A. plumbeolus*, the 40.5 mm SL specimen selected by me should be recatalogued as ANSP 2061, the paralectotypes would retain the numbers 2056-2060, and the specimen of *Notropis heterodon* (Fowler's lectotype) would become ANSP 2055.

8. In summary, evidence is presented to show that lectotypes designated by Fowler (1910) for two forms of North American cyprinid fishes (*Alburnops plumbeolus* and *Hypsilepis cornutus cerasinus*) represent species different from those on which the original descriptions were based. Should these designations be accepted, specific name changes would be required for two species (*Notropis cerasinus* and *Notropis albeolus*), and a third species (*Notropis heterodon*) would be subject to change, depending upon the action of the first reviser. Inasmuch as such changes are totally unnecessary and inappropriate, and are not in line with presently accepted taxonomic practices, I hereby request the International Commission:

(1) to use its plenary powers to suppress the lectotype designation made by Fowler (1910) for the nominal species-group taxa *Alburnops plumbeolus* Cope, 1865 and *Hypsilepis cornutus cerasinus* Cope, 1868;

(2) to place the following species-group names on the Official List of Specific Names in Zoology with the endorsements specified:

(a) *plumbeolus* Cope, 1865, as published in the binomen *Alburnops plumbeolus* and as defined by the lectotype designated by Gilbert, 1964;

(b) *cerasinus* Cope, 1868 as published in the combination *Hypsilepis cornutus cerasinus* and as defined by the lectotype designated by Gilbert, 1964.

9. This application is supported by Dr. B.B. Collette and Dr. W.R. Taylor, co-chairmen of the nomenclature committee of the American Society of Ichthyologists and Herpetologists.